

## It Can Be Learned, but Can It Be Taught? Results from a State-Wide Training Initiative on PTSD and Substance Abuse

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**ABSTRACT.** *Objective:* To evaluate clinicians' knowledge of the dual diagnosis of posttraumatic stress disorder (PTSD) and substance use disorder (SUD) before and after a six-month intensive state-wide training on this topic. *Methods:* 225 clinicians in seven community-based substance abuse and mental health agencies in Connecticut completed a knowledge test on PTSD and SUD before and after the intensive training program. They also completed a measure of their professional and personal characteristics. The intensive program on PTSD and SUD included three full days of training, monthly on-site consultation meetings, and weekly telephone conference calls. All seven agencies implemented Seeking Safety, a manual-based intervention designed for PTSD and SUD, and the training focused on that treatment model as well as more general PTSD-SUD information. *Results:* Clinicians' knowledge in-

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creased significantly from pre- to post-training, but only by 5%. At pre-training, their knowledge was already relatively high (68% of items correct). However, knowledge of basic facts on trauma and PTSD were known by only a minority of the sample even after the intensive training. Clinicians' professional and personal characteristics (e.g., degree, experience, age, gender) were not associated with their knowledge levels, nor was their own experience of trauma, PTSD, or SUD. *Conclusions:* It is unclear what educational methods might be most effective to teach clinicians about the dual diagnosis of PTSD and SUD. Knowledge levels on this topic range widely, and the small increase observed in this study suggests the need for further study and innovation. Evaluation of knowledge in relation to clinical practice is also needed. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <<http://www.HaworthPress.com>> © 2005 by The Haworth Press, Inc. All rights reserved.]

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Posttraumatic stress disorder (PTSD) is one of the most common diagnoses to co-occur with substance use disorder (SUD), and trauma per se has been experienced by a majority of SUD clients.<sup>1,2</sup> In the past several years, an important innovation has been the development of *trauma-specific* and *trauma-informed* services that can be used in SUD treatment programs.<sup>3,4</sup> The former refers to the use of therapy models that directly address trauma and PTSD. The latter refers to education of all staff on trauma and PTSD, even if they are not providing therapy themselves (such as administrators, support staff, and security personnel). In general, it is widely believed that the implementation of both trauma-specific and trauma-informed services may help SUD clients who have suffered trauma, such as childhood physical or sexual abuse, domestic violence, assault, combat, or natural disaster.<sup>3,4,5</sup> Indeed, at least one recent multi-site federally-funded treatment outcome study evaluated the impact of trauma-specific and trauma-informed services compared to treatment-as-usual, with a finding that the former produced significantly better outcomes than the latter, at both six and twelve months after entry into the service program.<sup>4,6</sup>

An example of a trauma-specific model is Seeking Safety,<sup>7</sup> which was designed for the dual diagnosis of PTSD and SUD. It offers

psychoeducation about trauma, PTSD, and SUD; coping skills to aid clients' recovery from these; and treatment considerations for the clinician (such as how to manage clients' self-harm impulses). Seeking Safety is, at this point, the most empirically-studied model for the dual diagnosis of PTSD and SUD, with eight completed trials (for a summary see Note 8, and the website [www.seekingsafety.org](http://www.seekingsafety.org)).

As part of a one-year state-wide effort to implement both trauma-specific and trauma-informed services, the current project evaluated clinician knowledge both before and after training on these topics. In addition, clinician professional background characteristics were obtained to evaluate whether knowledge varied based on those.

## METHOD

Prior to a two-day workshop training on the treatment of PTSD and SUD, 225 attendees completed a 30-item test to evaluate their knowledge of this topic, as well as a questionnaire about their professional background characteristics (see Assessment below). The workshop was held at seven sites as the first step in a state-wide effort to bring trauma-informed treatment to community-based, publicly-funded service agencies (both mental health and substance abuse). The workshops were identical across sites.

*Project.* The state of Connecticut initiated a one-year program to help create trauma-informed treatment in its community-based, publicly-funded service agencies (both mental health and substance abuse). Seven such agencies selected Seeking Safety as the trauma-specific model they would implement, and these seven comprise the basis of this paper. Each of these agencies was provided with (a) an initial two-day clinical workshop on PTSD and SUD, with a focus on implementation of the Seeking Safety model for this dual diagnosis; (b) a subsequent one-day advanced workshop on the same topic held at least six months after the initial workshop; (c) a monthly on-site consultation visit ranging from 1-2 hours, to discuss progress of the Seeking Safety implementation; and (d) a weekly telephone consultation of 1/2 hour to one hour to discuss implementation. Throughout, emphasis was on actual clinical cases, challenging scenarios, and increased knowledge of PTSD, SUD, and the Seeking Safety model. Both of the workshops were conducted by the originator of Seeking Safety (Najavits), with the on-site and telephone consultation conducted by her associate (a doctoral level psychologist), whom she supervised throughout. Workshops were identical

across sites, and all of those who attended the first workshop were invited back for the second.

*Assessment.* Two measures were administered. (1) The Clinician Self-Test (CST<sup>9</sup>) is a 30-item questionnaire designed to assess knowledge of some key points in the treatment of PTSD and SUD. It is comprised of 23 multiple choice items and seven true-false items, per Table 1. *Items were developed by the first author, based on existing literature and the Seeking Safety book.*<sup>1,2,7</sup> A final percent correct variable was computed as the total number of correct responses, divided by number of available responses, per person. If a participant endorsed two answers to any item, this was coded as a wrong response. (2) The Clinician Background Questionnaire (CBQ<sup>10</sup>) obtains descriptive variables on clinicians, including professional characteristics (e.g., training, work setting, clinical experience, and theoretical orientation); personal characteristics (e.g., age, gender, and history of trauma, PTSD, and SUD); and subjective professional characteristics (e.g., self-perceived satisfaction with their clinical work, such as liking of it, effectiveness, and burnout, rated 0%-100%). For theoretical orientation, respondents are asked to endorse what percent of each of seven orientations they are, to total 100% (to obtain a more accurate report, as many clinicians combine orientations); *orientations listed were psychodynamic, 12-step, cognitive-behavioral, psychopharmacologic, family systems, humanistic, and "alternative models."* Any model not included in the list that the clinician wanted to add in and describe, such as meditation and art therapy.

*Participants.* At each of the seven sites, attendees of the two-day workshop on PTSD and SUD were invited to complete the two measures. Participation was voluntary, but it was requested that the scales be completed prior to the start of the workshop so to assess knowledge before training began. In addition, at the advanced workshop (six months after the initial workshop), attendees were administered the CST again to evaluate their increase in knowledge. Some participants attended one training but not the other; thus, only a subset are available at both timepoints. *Participants were not given a score or any feedback on the CST at any point as we had the goal of re-administering the measure at time 2 and did not want to bias their responses.*

*Data analysis.* Descriptive statistics were conducted to describe the participants' sample and their results on the CST. To evaluate change in knowledge from time 1 to time 2 (percent correct on the CST), a paired-samples *t*-test was conducted on the 30 participants available at both time points. To evaluate the relationship between participants' pro-

TABLE 1. Clinician Self-Test on PTSD and Substance Abuse<sup>9</sup>: Percent Correct at Pre- and Post-Training

Item	Question (and correct answer in <i>italics</i> )	Pre-Training	Post-Training
1.	Trauma is more common for men than women. (T/F)	13.8%	18%
2.	The three major symptom clusters of DSM-IV PTSD are: <i>intrusion, avoidance, arousal</i>	30.2%	40%
3.	"Trauma" means: <i>The experience, threat or witnessing of physical harm</i>	30.2%	22%
4.	Clients with trauma/PTSD typically need: <i>a lot of reassurance</i>	40.0%	40%
5.	Some clients have "substance-induced PTSD" (that is, they appear to have PTSD, but this only reflects their substance use). (T/F)	42.2%	56%
6.	Most people exposed to a trauma develop PTSD. (T/F)	47.1%	66%
7.	Among women in substance abuse treatment, approximately what percent have current PTSD: <i>45%</i>	51.1%	60%
8.	Women with PTSD and substance abuse typically experienced: <i>a different pattern than men as opposed to the same pattern as men</i>	54.2%	76%
9.	In treatment programs, who is more likely to have PTSD and substance abuse: <i>women</i>	55.1%	62%
10.	Which disorder (PTSD or substance abuse) should be worked on first? <i>Both at the same time.</i>	58.2%	84%
11.	Clients with PTSD are at increased risk for all but which type of problem below: <i>All of the above—eating disturbances, sleep disturbances, AIDS</i>	60.0%	64%
12.	A client says to you, "I am afraid of getting sober, because my PTSD may get worse." A good response would be: <i>It may get worse, but if you "hang in there" it will get better.</i>	61.8%	72%
13.	Which below is NOT recommended in early-stage treatment of PTSD/substance abuse: <i>Discussing details of past trauma</i>	66.7%	86%
14.	Women with PTSD and substance abuse typically experienced: <i>childhood trauma as opposed to adult trauma</i>	67.6%	82%
15.	If a client with PTSD/substance abuse says, "My individual therapy is not working; I want to quit," what would be a good response? <i>"It's up to you to decide; what would help with that decision?"</i>	70.2%	72%

TABLE 1 (continued)

Item	Question (and correct answer in <i>italics</i> )	Pre-Training	Post-Training
16.	The "Stockholm syndrome" means: <i>Idealizing the person who abused you</i>	72.4%	72%
17.	Women with PTSD and substance abuse typically experienced: <i>sexual/physical trauma as opposed to general disaster trauma</i>	74.2%	94%
18.	Women with PTSD and substance abuse typically experienced: <i>multiple traumas as opposed to one trauma</i>	74.7%	86%
19.	Which below is NOT a typical problem area of PTSD: <i>sense of humor</i>	75.6%	84%
20.	The dual diagnosis of PTSD and substance abuse is associated with use of less severe drugs (e.g., marijuana) rather than more severe drugs (e.g., heroin, cocaine). (T/F)	76.4%	70%
21.	In most cases, the PTSD came first, then the substance abuse developed as an attempt to "self-medicate" it. (T/F)	77.8%	70%
22.	When treating a client with PTSD and substance abuse who no-shows sessions, what approach would be best? <i>Welcome the person back no matter how many s/he has missed</i>	77.8%	90%
23.	Clients with PTSD and substance abuse have a more severe clinical course than women with either disorder alone. (T/F)	78.7%	90%
24.	If a client says she wants to give up heroin, but will keep using marijuana, a helpful response would be: <i>Praise her willingness to give up heroin.</i>	78.7%	92%
25.	What are the three stages of recovery from PTSD? <i>Safety, mourning, reconnection</i>	78.7%	90%
26.	Rethinking (also called cognitive restructuring) means: <i>How you think affects how you feel.</i>	79.6%	82%
27.	PTSD is more common in men than women. (T/F)	81.3%	82%
28.	Which below is a key skill in working with PTSD/substance abuse clients? <i>All of the above—Empathy, Grounding, Education</i>	87.1%	84%
29.	The tendency to be revictimized means: <i>The tendency for trauma victims to have another trauma occur</i>	91.6%	93%
30.	"PTSD" stands for: <i>Posttraumatic stress disorder</i>	97.3%	98%

Note: n = 225 at time 1, and n = 50 at time 2

professional characteristics and results on the CST, the percent correct variable was evaluated in relation to each CBQ item. This was done at time 1 only (both due to the higher sample size at that time, and also its relevance in indicating typical knowledge among front-line providers prior to implementing the intensive trauma/PTSD/dual diagnosis training in this project). For CBQ items that were continuous (e.g., age, number of years of clinical experience), a bivariate two-tailed correlation was computed; for CBQ categorical items, either an independent samples t-test (for items with two categories) or a one-way ANOVA (for items with three or more categories) was conducted. If the one-way ANOVA overall F-test was significant, a posthoc least-significant-difference was also conducted. The significance criterion for all statistics was .05 or below.

## RESULTS

*Participant characteristics.* The number of participants per site ranged from 2-22; the majority were with a partner (58.9%), with 35.8% single or divorced; 68.5% were female; 84% were Caucasian, 9.9% African-American, and 6.2% Hispanic; 50% worked in a substance abuse setting, 15.6% in mental health, and 24.4% in dual diagnosis; 16.7% were currently in training; professional degree was 35.7% social work, 18.6% certified addiction counselor, 7.1% certified mental health counselor, 2.4% doctoral psychologist, and 1.2% each for physician, pastoral counselor, master's in any field other than those above, and no training. Lifetime personal experience included 54.2% who had experienced trauma, 35.4% PTSD, and 27.4% substance abuse. *Variables on which percentages do not total to 100% are due to missing data.*

*Knowledge test results.* Results on each item at each time point are provided in Table 1. There appears to be a wide range in knowledge, such that some items were known by few participants while others were correctly answered by most. Of particular concern is that some very basic facts about trauma and PTSD appear unknown to most of the sample, even at time 2 after their intensive training on this topic (see Table 1, rows 1-6). Clinical strategies appear more widely known (e.g., rows 10, 12, 15, 22, 24), although quite remarkably, the concept of providing reassurance to clients (row 4) is endorsed by only 40% of the sample at both times 1 and 2. *To evaluate change in knowledge over time, a paired samples t-test was conducted on the subset of participants who completed the knowledge test at both time points (n = 30), with a finding of a*



small but significant increase in mean correct responses between times 1 and 2 ( $x = .70$ ,  $sd = .12$  vs.  $x = .75$ ,  $sd = .10$ ;  $t = -2.85$ ,  $df = 29$ ,  $p = .008$ ). It is notable that at time 1, some clinicians from the full sample already had correct responses on quite a large number of items (see rows 18-30, all correct for 75% of the sample or higher at time 1).

*Professional characteristics in relation to knowledge test.* Professional characteristics were evaluated in relation to the percent correct on the knowledge test at time 1. The vast majority were non-significant, indicating that knowledge level did not depend on the professional characteristics. The only significant variables were as follows: theoretical orientation: alternative models ( $r = -.41$ ,  $p = .007$ ); career satisfaction—burned out ( $r = -.24$ ,  $p = .04$ ); number of direct care hours—SUD clients ( $r = -.24$ ,  $p = .05$ ); influence on one's treatment of SUD clients—informal SUD training; and race ( $F = 8.97$ ,  $p < .00$ ,  $df = 2, 78$ ) with post-hoc least significant differences test indicating African-Americans with a significantly lower knowledge score than Caucasians ( $x = .57$ ,  $sd = .16$ ,  $n = 68$  versus  $x = .73$ ,  $sd = .10$ ,  $n = 8$ ); Hispanics ( $x = .66$ ,  $sd = .10$ ,  $n = 5$ ) did not differ significantly from the other two racial groups.

Nonsignificant variables were: site; marital status; gender; age; professional degree; setting (mental health, SUD, dual diagnosis); theoretical orientation (CBT, psychodynamic, 12-step, psychopharmacologic, family systems, humanistic, and no model); personal experience of trauma; personal experience of PTSD; personal experience of SUD; in recovery from SUD; career satisfaction—gratified by counseling work; career satisfaction—feeling effective as a counselor; career satisfaction—likelihood of choosing same career again; in training versus not in training; months clinical experience—all clients; months clinical experience with SUD clients, months clinical experience with trauma/PTSD clients; number of supervised hours—SUD; number of SUD courses; number of workshop hours—SUD; number of supervised hours—trauma/PTSD; weekly hours of total clinical contact; weekly hours of clinical contact—trauma/PTSD clients; weekly non-clinical hours; satisfaction with career life; satisfaction with personal life; influence on one's treatment of SUD clients—personal experience of SUD; influence on one's treatment of SUD clients—general life experiences; influence on one's treatment of SUD clients—clinical experience; influence on one's treatment of SUD clients—personal therapy; influence on one's treatment of trauma/PTSD clients—personal experience of trauma/PTSD; influence on one's treatment of trauma/PTSD clients—general life experiences; influence on one's treatment of trauma/PTSD clients—clinical experience; influence on one's treatment of trauma/PTSD clients—informal profes-



sional training; influence on one's treatment of trauma/PTSD clients—personal therapy.

## DISCUSSION

This appears to be the first study available on the topic of clinicians' knowledge on the topic of the dual diagnosis of PTSD and SUD. Moreover, we were able to address whether their knowledge increased after a highly intensive state-wide training initiative specifically designed to teach them about this topic. The training initiative included an initial two-day training plus a one-day follow-up training six months later, monthly on-site consultation with a doctoral psychologist, weekly telephone conference calls, and provision of training materials (the Seeking Safety book, workshop handouts, etc.). The study is also notable for its high sample size (225 participants at time 1), as well as the diverse sample of clinicians (e.g., 16% minority; and various work settings, degree types, theoretical orientations, and experience levels). The attempt to ascertain knowledge of clinicians in front-line community-based programs, rather than as part of carefully selected samples in more formal randomized trials, appears to offer particular relevance to real-world practice.

Several results are notable. First, clinicians' knowledge did increase significantly over time, *although this needs replication in future research due to the small sample with data at both time points ( $n = 30$ )*. Second, a substantial percentage of the sample appears to have begun the project already possessing accurate knowledge of the topic (e.g., the percent correct at pre-training was 68% of items). Third, despite the optimism of these two findings, there is cause for concern. Most participants did not know basic facts about trauma and PTSD even after the intensive training (such as the definition of trauma, the three symptom clusters of PTSD, and traumatized clients' need for a lot of reassurance by the clinician). Moreover, the increase in knowledge found from pre- to post-training was quite small, at just 5%. Fourth and finally, neither professional nor personal background characteristics of the clinicians appeared related to knowledge levels, suggesting that some other as-yet-unknown factors need to be identified to better understand the wide range in their knowledge. A large number of variables were included in the analysis of this question, and only a few were significant; due to the likelihood of type I error, the significant findings are thus not amenable to interpretation. However, it is striking that even variables such as cli-

nicians' own personal history of trauma, PTSD, or SUD did not significantly impact knowledge levels. Other variables that also might be presumed to impact knowledge, such as years of clinical experience, type of degree, and theoretical orientation, were also nonsignificant overall. Although not the subject of this paper, the relatively high rates of trauma exposure (54% of the clinicians), PTSD (35%) and substance abuse (27%) may have implications for future research and training (such as how clinicians who have versus have not experienced these might vary in their outcomes with clients). Ironically, however, given the low knowledge level of how trauma and PTSD are defined in the DSM-IV, we do not actually know whether clinicians were accurate in their self-diagnoses.

The study had several limitations that will, it is hoped, be improved on in future research. First, the sample was one of convenience rather than true random sampling. Second, the two measures in this study were not psychometrically validated, and thus some results may accrue to problems with scaling (e.g., ceiling or floor effects) and item wording. For example, question 21 likely should be reworded to provide just the factual information ("In most cases, the PTSD came first, then the substance abuse developed") rather than adding the hypothetical statement ("as an attempt to 'self-medicate' it"). Third, there was notable sample attrition from time 1 to time 2, due to a variety of factors (i.e., clinicians were not required to attend the follow-up training and, if they did attend, were not required to fill out the CST; also, some clinicians had left the program between the two time points). Fourth, we did not have data to explore how participants differed from non-participants, nor how many clinicians chose not to participate. Finally, the amount of training received by clinicians on this project was not measured, and thus we were unable to correlate the dose of training with knowledge levels. The impact of knowledge on clinical practice is also unknown. Nonetheless, the study provides an initial exploration of an important topic: what do clinicians know about the very common dual diagnosis of PTSD and SUD, and can their knowledge increase over time? The need for improved services for PTSD-SUD clients has been noted for quite a while.<sup>2,3</sup> Perhaps further innovations in training clinicians and continued assessment of their knowledge might assist this goal. Yet the issue remains: clinicians can learn, but can we teach them? That is, there remains much to be learned about how clinicians acquire their knowledge, and how we can improve that process.

## NOTES

1. Kessler RC, Sonnega A, Bromet E, Hughes M, Nelson CB. Posttraumatic stress disorder in the national comorbidity survey. *Arch Gen Psych*. 1995;52:1048-1060.
2. Najavits LM, Weiss RD, Shaw SR. The link between substance abuse and posttraumatic stress disorder in women: A research review. *Am J Addictions*. 1997; 6:273-283.
3. Fallot RD, Harris M, editors. *Using Trauma Theory to Design Service Systems. New Directions for Mental Health Services*. San Francisco: Jossey-Bass; 2001.
4. Morrissey JP, Jackson EW, Ellis AR, Amaro H, Brown VB, Najavits LM. 12-month outcomes of trauma-informed interventions for women with co-occurring disorders. Under review.
5. Glover Reed B, Moses DJ, Heckman J, Finkelstein N, Savage A, Amaro A, Najavits LM. Integrating services that address violence and trauma into substance abuse and mental health treatment for women: A dissemination of innovation analysis. Under review.
6. Morrissey J, Ellis A, Gatz M et al.: Outcomes for women with co-occurring disorders and trauma: Program and person-level effects. *J Substance Abuse Treatment*; in press.
7. Najavits LM. *Seeking Safety: A Treatment Manual for PTSD and Substance Abuse*. New York, NY: Guilford; 2002.
8. Najavits LM. Seeking Safety. In: Follette V, Ruzek JL, editors. *Cognitive-Behavioral Therapies for Trauma*. 2nd ed. New York: Guilford Press; in press.
9. Najavits LM. Clinician self-test on PTSD and substance abuse. In: Unpublished scale, Harvard Medical School (Boston, MA) and McLean Hospital (Belmont, MA); 1999.
10. Najavits LM. Clinician Background Questionnaire. Unpublished measure, Harvard Medical School (Boston, MA) and McLean Hospital (Belmont, MA); 1992.

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